Sticky Intuition:
Following Your Intuition Can Make You Less Likely to Change Your Mind Than Following a Structured Process

Abstract

Given the constantly evolving nature of many consequential decisions, being able to adapt to new information is an important asset of prudent decision-making. Taking into account contradictory evidence is necessary to prevent decision-makers from sticking with outdated decisions, which can carry substantial individual and organizational costs. Our research shows that how a decision is initially made shapes both how people evaluate later information that contradicts it and their willingness to change their minds. Across four studies, we show that after people follow their intuition to make a decision, they become more likely to dismiss new contradictory information as irrelevant and unimportant, compared to people who follow a structured decision process. Consistent with this pattern, they are less likely to change their minds in light of that information. These effects are not fully explained by differences in decision-making confidence. Instead, we find that people often feel a stronger sense of psychological ownership over intuitive decisions than process-led decisions, which helps explain why they are more likely to stick to these intuitively driven decisions. By testing structured processes that vary in flexibility, we establish a boundary to our effect in which freely determined processes evoke similar feelings of psychological ownership as intuitive decisions, closing the gap in mind-change behavior between the two decision approaches.

Keywords: decision-making; intuition; dual-process, psychological ownership; mind-change

Imagine making a hiring decision between Candidates A & B. Relying on your intuition leads you to favor Candidate A. Or imagine following a decision matrix leads you to endorse Candidate A. Later, new information emerges that highlights Candidate A's weakness (or Candidate B's strength). Does the way in which you formed your initial decision (either by intuition or the decision matrix) affect how you evaluate this contradictory information and ultimately whether you change your mind?

People often fail to revise their decisions despite the emergence of disconfirming information. This reluctance carries performance costs: it prolongs errors, delays corrective behavior, and can compound losses by keeping individuals and organizations committed to inferior courses of action (Brockner, 1992; Sleesman et al., 2012; Staw, 1976). Sticking with potentially outdated decisions can also elicit negative impressions, such that decision-makers are perceived as stubborn, unintelligent, or dogmatic (John et al., 2019; Ottati et al., 2015, 2015). Decisions that are initially accurate can later face new diagnostic evidence, so the capacity to evaluate and incorporate additional information is an important component of good decision-making (Minson et al., 2020; Minson & Chen, 2022).

Revising decisions in light of new evidence requires the willingness to access, consider, and evaluate opposing views (Minson & Chen, 2022). Existing research identifies situational features and individual differences that account for people's willingness to consider alternative evidence, such as belief characteristics (Minson & Chen, 2022), curiosity (Kashdan et al., 2004), dogmatism (Rokeach, 1960), the need for cognitive closure (Webster & Kruglanski, 1994), or actively open-minded thinking (Baron et al., 2016; Baron, 1991). Yet prior work has primarily examined willingness to consider contradictory information, or opposing views, at the moment disagreement occurs, focusing on the nature of the disagreeing message and recipient characteristics. Our research, on the other hand, investigates an antecedent to how people evaluate contradictory information, focusing on

how the decision being challenged was initially formed. Specifically, we test whether making intuitive decisions, rather than following a structured process, leads people to disregard the utility of contradictory information and, in turn, be less likely to change their minds.

We draw on dual-process theory that distinguishes intuitive processing, which is fast, effortless, and associative, from deliberative processing, which is analytical, slow, and effortful (Evans, 2010; Evans & Stanovich, 2013; Kahneman, 2011; Kahneman & Frederick, 2002). Deliberation can vary in its degree of structure, ranging from open-ended reflection to methodical strategies governed by explicit decision rules. We focus on a commonly advocated one for increasing accuracy and reducing individual bias - a structured decision process (Alter et al., 2007; Nutt, 2008), which is a methodical judgment strategy that relies on specific, mandated decision rules and procedures. We focus on decision processes with a clear structure because these are widely promoted in organizations as a means to standardize decisions across individuals in order to reduce error and improve decision quality.

We propose a mechanism that can impact how people evaluate contradictory information: psychological ownership, or the experience that a decision feels like one's *own* (Dirks et al., 1996; Pierce et al., 2003). Psychological ownership usually arises when people feel they have control over, intimate knowledge of, or personal investment in a target, and can therefore motivate defensiveness when that target is challenged (Pierce et al., 2001). We argue that intuitive decisions can elicit stronger psychological ownership than structured decisions when they feel more representative and expressive of one's internal states, despite requiring less investment of time and effort. Consequently, people will view contradictory information as less useful when it challenges a decision that feels more like one's own, and will in turn be less likely to change their minds.

In the present research, we test whether initial decisions formed via intuition elicit stronger psychological ownership than decisions formed via structured processes, and

whether this heightened ownership leads to greater disregard for contradictory information and thereby increases the likelihood people stick to their initial decisions. We vary decision domains and operationalizations of structured processes, measure confidence, and incorporate accuracy incentives to test the robustness, and limitations, of the effect.

1. How decision approach influences evaluations of contradictory information and mind-change behaviors

When people treat contradictory information as useful and consider it fairly rather than defensively discounting it, they are more likely to update their decisions (Minson & Chen, 2022). Doing so helps people correct errors and avoid the performance and social costs associated with sticking to potentially faulty decisions (Brockner, 1992; Ottati et al., 2015; Sleesman et al., 2012; Staw, 1976). One well-studied source of this openness is actively open-minded thinking, a stable tendency to consider evidence against one's beliefs, seek disconfirming information, and postpone closure (Baron et al., 2016; Evans & Stanovich, 2013; Newton et al., 2024). We ask instead whether such openness is not only a stable trait but also a state that the nature of the decision approach itself can raise or lower.

A variety of cognitive and motivational precursors have been documented for people refusing to change their minds, including overconfidence (Simmons & Nelson, 2006), sunk cost bias (Arkes & Blumer, 1985), the need for self-justification (Brockner, 1992), motivated reasoning (Kunda, 1990), the desire to be consistent (Klayman, 1995; Russo et al., 2008), and anticipated regret (Wong & Kwong, 2007). These antecedents, however, do not make consistent predictions on whether reliance on intuition versus a structured decision process should make people more resistant to change. Making intuitive judgments may feel more representative of the self and thus invite greater defensiveness when challenged, which would make intuitive decisions stickier. Following structured processes, on the other hand, typically requires greater time and effort, which could increase commitment to initial decisions and

reduce willingness to change. Deliberate, controlled responses have also been associated with greater perceived authenticity than intuitive, or automatic responses (Garrison et al., 2023; Mata & Vaz, 2024; Vaz & Mata, 2025). Both of these considerations would suggest that structured decisions, rather than intuitive ones, could be more resistant to change.

We predict that decision-makers will view information that challenges their prior decisions more negatively when these decisions are reached intuitively versus through a structured process. People often resist opposing views and attempt to dismiss and discredit them, especially when the issue is emotionally significant, strongly held, or identity relevant (Kirkebøen & Nordbye, 2017; Krosnick, 1988; Lord et al., 1979). Given that intuitive decisions can feel more like an expression of the "true self" (Chiacchia et al., 2025) as it draws primarily on internal content, such as stored memories, beliefs, and prior experiences (Logan, 1988), disconfirming information may be experienced as unappealing and personally threatening (Woolley & Risen, 2018). In turn, revising an intuitive judgment may feel normatively and psychologically costly. The idea of going against one's intuitive judgment may seem antithetical (Risen, 2016; Risen & Gilovich, 2007, 2008) and the negative connotations associated with changing one's mind (i.e. flip-flopper, waffler) could be heightened when intuitive judgments are overturned (John et al., 2019). There is also the unpleasant possibility of going against one's gut and being wrong, which may feel particularly painful (Risen & Gilovich, 2008).

Relying on a structured process, on the other hand, involves adherence to decisional constraints that require decision-makers to gather and organize information using a rule-based logic (Kruglanski & Gigerenzer, 2018). As a result, process-based decisions should be less driven by whichever internal cues come to mind first and instead anchored in a pre-determined set of criteria. Because these decisions are perceived as guided more by procedure and less by one's internal beliefs, the constraints of the decision process may feel less self-

expressive and less identity-relevant than intuitive decisions, making contradictory information feel less personally threatening and therefore easier to evaluate with an open mind. Changing, or reversing a process-led decision may also feel relatively painless, if the decision feels less representative of one's beliefs and feelings. Therefore, we make the following set of predictions:

H1: Decision-makers who rely on their intuition will be more likely to disregard the utility of subsequent contradictory information that challenges their prior decisions than decision-makers who rely on a structured process.

H2: Decision-makers who rely on their intuition will be more likely to stick with their prior decisions, in the face of contradictory information, than decision-makers who rely on a structured process.

An alternative account is that decision approach should affect how people evaluate contradictory information and decide to change their minds given how confident one feels in the perceived accuracy of the decision. People may be more willing to revise when they doubt their initial decision was correct, and decision-makers may feel differently confident depending on the approach they used. Experts could feel confident in their gut feelings leading to optimal solutions (Simmons & Nelson, 2006). In situations in which decision-makers explicitly recognize the accuracy benefits of deliberative reasoning and the pitfalls of reliance on intuition, we would expect less mind-change from process-led decision-makers (Mata, 2023; Mata et al., 2013). However, the relationship between confidence and mind-change is not uniform. Confidently held subjective attitudes and personal opinions tend to be more resistant to change (Bassili, 1996; Tormala & Rucker, 2022; Wu & Shaffer, 1987; Zuwerink & Devine, 1996), whereas confidently held objective facts, when wrong, can be more quickly revised due to hypercorrection (Butterfield & Metcalfe, 2001; Fazio & Marsh, 2009). We, therefore, measure decision-maker confidence both at the time of their initial

decision and after faced with contradictory information. Because perceived accuracy of intuition versus structured processes may vary across contexts, we sample multiple novel decision domains (in which there is no strong norm dictating how decisions should be made) and implement different structured processes, including one that is widely recognized as leading to accurate decisions. Even when there is no difference in confidence in perceived accuracy, we expect intuitive decision-makers to be more likely to disregard contradictory information and be less open to changing their minds than process-led decision-makers.

2. Role of psychological ownership

We predict intuitive decision-makers are more likely to disregard the utility of contradictory information, finding it less relevant and important, and be less likely to change their minds, compared to process-led decision-makers because intuitive decisions can evoke stronger feelings of psychological ownership. Psychological ownership is defined as a cognitive-affective state in which people experience a connection between themselves and a target, so they feel the target is *theirs* (Dirks et al., 1996; Pierce et al., 2003). Feelings of ownership emerge as one gets to know a target intimately, exercises control over the target, or invests the self into the target (Pierce et al., 2001, 2003).

We extend this logic to the decisions people make. Prior work finds that psychological ownership traditionally increases with greater investment in a target (Pierce et al., 2001, 2003), suggesting that structured decisions that require more time, thought, and effort should elicit stronger feelings of ownership. We argue, however, that in decision-making contexts, feelings of ownership may not necessarily be effort-based but instead reflect the extent to which a decision incorporates one's own beliefs and feelings. Because intuitive decisions reflect personal feelings, beliefs, and preferences (Klein, 2004; Wilson, 2004), and are less constrained by pre-determined rules than process-driven decisions, we predict that intuitive decisions will often elicit a stronger sense of psychological ownership.

In contrast, structured decision processes usually rely on externally specified steps and criteria, which can reduce the extent to which the resulting decision feels personally authored despite a greater investment in time and effort.

As intuitive decisions feel more like one's own than process-led decisions, we expect decision-makers to be more likely to disregard the utility of disconfirming information and stick with their initial decisions. When people feel ownership over a target, they often experience greater control (Pierce et al., 2003), so disconfirming input can be experienced not simply as information but as a challenge to that control, thereby eliciting protective responses such as resisting others' influence and discounting their contributions (Cocieru et al., 2019; Zhu et al., 2018). For example, people resist others' suggestions when they perceive the proposed changes as subtractive, meaning that the changes take away from or diminish their own idea, which can elicit negative affect and a sense of loss (Baer & Brown, 2012). On this account, we believe that when intuition-led decision-makers are confronted with contradictory information, they will view this information as a subtractive threat and therefore be more likely to disregard such information. Therefore, we make our final two predictions:

H3: Decision-makers can feel stronger psychological ownership toward decisions made relying on their intuition, than decisions made relying on a structured process.

H4: Psychological ownership can mediate the relationship between decision approach and mind-change behaviors.

While structured processes, by definition, are more constrained than relying on one's intuition, they can vary on the extent to which the process is externally imposed or internally created. Our investigation focuses primarily on structured processes that are externally imposed, as is common in organizational settings, where standardized decisions confer accuracy benefits by reducing individual error. As decision-makers gain more latitude to

design the process themselves, the resulting decision may start to feel more like their *own*, and we thereby expect these structured decisions to become stickier. In other words, as the gap in psychological ownership between the two decision approaches narrows, we expect the gap in mind-change behaviors to narrow as well. We therefore test the boundaries of our effect by contrasting intuition against processes that decision-makers adjust, customize, or freely determine.

Our research contributes to literatures on engagement of opposing views, psychological ownership, mind-change, and dual-process decision-making. First, we identify decision approach as an antecedent to how people evaluate contradictory information, showing that intuitive and process-led decisions evoke different degrees of psychological ownership, which in turn affect how relevant and important decision-makers view disconfirming information. By doing so, we move beyond the moment of disagreement, which prior work has emphasized, to an earlier precedent, namely how the challenged decision was initially formed. Our findings, thereby, offer another important reason to champion use of structured decision-making, not only to improve accuracy, but to keep decision-makers willing to consider to new information and revise their decisions.

Next, we extend the psychological ownership literature by arguing that ownership over a decision is not solely a function of resources invested towards making it, but also how much the decision reflects the decision-makers' own beliefs and feelings. Intuitive decisions can feel strongly like one's own decision despite requiring no effort, indicating a route to ownership that goes beyond traditional effort and investment based accounts. This carries implications for the mind-change literature, which has largely traced resistance to revision to sunk cost, escalation, and self-justification (Sleesman et al., 2012; Staw, 1976). We point instead to a feeling that precedes those, namely a decision feeling like one's own, which can

make people resist changing their decision even when they have invested little in terms of time or effort.

Finally, we contribute to dual-process literature by delineating an important downstream consequence of decision approach, finding that intuitive decisions are more resistant to change in the face of contradictory information, in part because they feel more like one's *own*. Insight into this mechanism offers an important lever for designing decision environments that can reduce both the appeal of intuitive decisions and the incidence of sticking to potentially faulty decisions.

3. Overview of Studies

Across four preregistered studies (with additional support from three studies in the Supplement), we investigated whether forming a decision via intuition (versus a structured decision process) affected utility evaluations of contradictory information and mind-change behaviors. Study 1 established the main effect with a concrete, step-by-step structured process. Studies 2 & 3 explored the boundaries of the effect with a customized and freely determined structured process, respectively. Studies 2 & 3 additionally tested psychological ownership as the proposed mechanism by examining whether decisions felt more like one's *own* when made intuitively than when made through following a structured process. Finally, Study 4 investigated whether the effect would hold when intuition was compared to a structured process widely recognized as leading to more accurate decisions.

In each study, participants were randomly assigned to make an initial prediction relying on their intuition or following a structured process, then received decision-incongruent information and reported its perceived utility (relevance/importance), indicated their willingness to adjust, and had the opportunity to change their mind. We also measured confidence to address an alternative account based on confidence in perceived accuracy of decisions. To test robustness and generality, across studies we varied the decision context and

the type of structured process, sampled across cultures, and incorporated accuracy incentives. For online data collection, we recruited participants using vetted platforms that required verification criteria, screened for participants with 98% approval ratings who had a minimum of 500 previous submissions, included attention check questions in our surveys, and automatically rejected fast submissions in order to minimize low-quality or non-human responses.

3.1. Pilot

Inspired by the legal context, in which it is critical for the jury to remain open to constantly evolving evidence, we conducted an initial test on whether decision approach influenced evaluation of contradictory information and mind-change behavior. 812 U.S. mTurk participants (M_{age} = 43.83 years, *SD* = 12.67; 56.0% male, 43.8% female, 0.2% other) played the role of jurors in determining criminal liability. All jurors watched a video of an accident in which two cars (Driver A and B) collide in an intersection.[1] We randomly assigned jurors to determine fault using their intuition or a structured process. The process condition entailed evaluating the two drivers using a 15-point checklist of behaviors determining liability (vision obstruction, driver concentration, and driver judgment).

We then instructed all jurors that additional evidence was now available that contradicted their initial judgment. Specifically, we informed them that the unselected driver had a history of traffic violations; the majority accidents at that intersection were caused by drivers coming from the same direction as the unselected driver; and that an eyewitness saw a phone drop out of the unselected driver's seat, suggesting distracted driving. After reviewing the new evidence that contradicted their initial judgment, all jurors were given the opportunity to change their decision for the final verdict.

[1] https://youtu.be/V6iQ_Uxe7B8

Despite having spent more time, and arguably effort, in making their decision, jurors who formed their initial judgment with the help of the structured process evaluated the contradictory information more positively, finding it more relevant ($M_{intuition}$ = 2.83 of 5, *SD* = 1.23 vs. $M_{process}$ = 3.07, *SD* = 1.25, t(806) = 2.77, p = .006, *d* = .195) and important ($M_{intuition}$ = 2.77 of 5, *SD* = 1.25 vs. $M_{process}$ = 3.02, *SD* = 1.28, t(806) = 2.77, p = .006, *d* = .195), and were more likely to change their minds (30.9%), in line with the new evidence, compared to those who relied on their gut feelings (23.6%), $x^2(1, 807) = 5.39$, $p = .020$, $\varphi = .082$. These initial results suggest that the way in which beliefs are formed at Time 1 may be critical in determining how decision-makers evaluate contradictory information in Time 2, and how likely they are to change their minds.

4. Study 1

We began our formal inquiry by asking participants to make a decision in a workplace context, either relying on their gut reaction or by following a structured process, to test whether it affected their evaluation of contradictory information and their likelihood of changing their mind.

4.1. Method

4.1.1. Sample

379 U.S. mTurk participants (M_{age} = 45.22 years, *SD* = 13.21; 52.5% male, 47.2% female, 0.3% other) participated in an academic study about decision-making. See Appendix A in the Supplement for the power analysis, a link to the video stimuli, and additional analyses.

4.1.2. Procedure & Measures

We told participants their task was to watch a 30-second muted video of two employees (man and woman) interacting during an office meeting and predict who has more seniority based on their non-verbal behavior, relying on their intuition or a structured decision

process. We told everyone their instructed method was effective in making accurate decisions in these kinds of people perception tasks.

In the intuition condition, participants watched the video and relied on their gut reaction to determine which employee had more seniority. In the process condition, participants watched the same video and made a series of evaluations. Participants were asked to rate how much each employee spoke; how much eye contact each employee made; and how much body language each employee used, with timestamps. We told participants these are three critical non-verbal components demonstrating seniority. Afterwards, we showed participants a summary of each employee's seniority score, in which a prediction was then formed on whether the female/male employee had higher seniority based on the participants' ratings.

All participants were asked to report their confidence level on the likelihood their prediction was correct on a sliding scale from 0-100 and were then presented with additional information. If participants selected the female (either by intuition or process), we told them: 1) these employees worked for a construction company founded by three male entrepreneurs where 85% of the employees were male; and 2) the male displayed less emotions which is a tendency of powerful individuals. If participants selected the male to be more senior (by either decision approach), we told them: 1) these employees worked at a cosmetics company founded by three female entrepreneurs where 85% of the employees were female; and 2) the female displayed more emotions which is a tendency of powerful individuals. In this way, all participants received equivalent information casting doubt on the perceived accuracy of their initial prediction.

Next, we asked participants to evaluate how *relevant* and *important* they found this additional information for determining seniority. We also asked how much they believed this new information offered "previously unconsidered novel information that should be taken

into account" for determining seniority. These three questions were answered on a 1-5 Likert scale from "Not at all" to "Extremely." We asked participants how much this additional information made them want to adjust their decision on who is more senior, on a 1-5 Likert scale from "None at all" to "A great deal." We asked how interested they were in receiving additional information (such as re-watching the same video or receiving another piece of information) on a sliding scale from 0-100.

At this point, we reminded all participants of their initial confidence level and asked them to report their confidence again on the same scale, given this new information. Finally, we gave participants the opportunity to change their decision or not.

3.2. Results

Evaluations of contradictory information and mind-change behavior. In line with our prediction, the way in which participants made their decision affected their evaluations of contradictory information and the likelihood of changing their mind (see Table 1). In support of H1, intuition-users evaluated contradictory information more negatively, finding the same information to be less relevant ($M_{intuition}$ = 3.23 of 5, SD = 1.10 vs. $M_{process}$ = 3.63, SD = 1.03, t(377) = -3.60, p < .001, d = -.374) and less important, $M_{intuition}$ = 3.19 of 5, SD = 1.12 vs. $M_{process}$ = 3.62, SD = 1.07, t(377) = -3.73, p < .001, d = -.386. We found no difference in perceptions of novelty ($M_{intuition}$ = 3.29 of 5, SD = 1.11 vs. $M_{process}$ = 3.42, SD = 1.04, t(377) = -1.22, p = .225, d = -.126) or interest in additional information ($M_{intuition}$ = 57.15 of 100, SD = 35.07 vs. $M_{process}$ = 59.71, SD = 31.34, t(366.36) = -.75, p = .456, d = -.077).

Importantly, intuition-users expressed less interest in adjusting their decision to account for the additional information than process-users, $M_{intuition}$ = 2.61 of 5, SD = 1.32 vs. $M_{process}$ = 3.01, SD = 1.31, t(377) = -2.93, p = .004, d = -.304. In support of H2, intuition-users were less likely to change their minds (31.0%) than process-users (51.5%), x^2(1, 379) = 16.31, p < .001, φ = .207.

Table 1
Summary of results of Studies 1-4

Decision Context	Structured Process	Relevance	Importance	Adjustment	% Changing Mind
Workplace Who has more seniority? S1	Decision Matrix	3.63	3.62	3.01	51.5%
	(Intuition)	3.23	3.19	2.61	31.0%
Workplace Who has more seniority? S2	Customizable decision matrix	3.16	3.01	2.72	31.4%
	(Intuition)	2.99	2.90	2.51	18.7%
Hiring Who is the better candidate? S3	Self-created process	3.57	3.53	2.76	46.5%
	(Intuition)	3.72	3.67	2.95	46.9%
Age Estimation How old is this person? S4	Customizable wisdom of crowds	3.23	3.19	2.70	51.8%
	Wisdom of crowds	3.24	3.17	2.80	58.1%
	(Intuition)	3.12	3.04	2.36	48.4%

Alternative explanations. We found no difference in initial predictions, with the female employee being chosen 69% of the time in the intuition condition and 65% of the time in the process condition, $x^2(1, 379) = .659$, $p = .417$, $\varphi = .042$. Importantly, intuitive decisions were not "stickier" because people were more confident. In other words, people were not changing their mind at a higher rate after utilizing the process, because they did not trust the accuracy of their predictions made using the process. We documented no difference in initial ($M_{\text{intuition}} = 67.97$ of 100, $SD = 17.95$ vs. $M_{\text{process}} = 64.69$, $SD = 26.06$, $t(272.45) = -1.38$, $p = .170$, $d = -.146$) or final confidence ($M_{\text{intuition}} = 52.65$, $SD = 24.49$ vs. $M_{\text{process}} = 50.55$, $SD = 28.65$, $t(317.17) = -.752$, $p = .453$, $d = -.079$) between decision approach. Following our pre-registration, we also created an adjusted confidence variable (absolute difference between initial and final confidence level), and we found no difference between

decision approach, $M_{intuition}$ = 15.32, *SD* = 18.88 vs. $M_{process}$ = 14.14, *SD* = 26.59, *t*(278.39) = -.48, *p* = .632, *d* = -.051. Across all studies in which we find our predicted main effect, the effect of decision approach on evaluation of contradictory information and mind-change behavior was robust to controlling for initial confidence (Table 2). Results were similar when controlling for final confidence (Table 3).

Although participants in both conditions felt significantly less confident after receiving contradictory information (with an approximate 20% decrease in confidence), this reduction appeared to more strongly affect decision-makers who followed a structured process, in terms of their willingness to change their mind. Indeed, intuitive decisions were "stickier" as decision-makers required greater reductions to confidence before they were willing to change their minds, compared to decision-makers who used the process, *F*(1, 375) = 6.53, *p* = .011, η_p^2 = -.014. Specifically, looking at the extent to which confidence was reduced for those who changed their minds, we found that intuitive decision-makers experienced significantly larger reductions to their confidence, compared to process-led decision-makers, $M_{confchange\_intuition}$ = 31.61, SD = 21.81 vs. $M_{confchange\_process}$ = 20.11, SD = 33.70, *t*(143.35) = 2.53, *p* = .012, *d* = .405.

Another potential alternative explanation is that the quantitative nature of the contradictory information presented in this study was more compatible with process-led decision-making. Given this contradictory information was structured and quantifiable, similar to the cues process-led decision-makers had initially relied on, they could have found it easier to incorporate than intuition-led decision-makers, in making the decision to change their minds. This possibility was tested in a 2x2 study in which both decision approach and the nature of the contradictory information were manipulated. The same two pieces of evidence served as the quantitative contradictory information, whereas subjective, narrative information on how peers felt around the target employees served as the contradictory

qualitative information. These two types of information were pre-tested to be equivalent in perceived utility so that any difference would be likely to reflect their nature, not quality. The results of the 2x2 study indicated that intuition users remained more likely to disregard contradictory evidence and less likely to change their minds, regardless of the quantitative versus qualitative nature of the contradictory information. See Appendix B in the Supplement for the full methods and results.

Table 2

Robustness check: OLS models controlling for initial confidence (Studies 1, 2 & 4)

	Study 1			Study 2			Study 4		
	Relevance	Importance	Mind-Change	Relevance	Importance	Mind-Change	Relevance	Importance	Mind-Change
Intuition	-0.381***	-0.406***	-0.181***	-0.167+	-0.113	-0.126**	-0.113	-0.119	-0.107**
	(0.111)	(0.114)	(0.047)	(0.090)	(0.093)	(0.040)	(0.072)	(0.076)	(0.035)
Initial Confidence	-0.006*	-0.006*	-0.007***	-0.005*	-0.007**	-0.007***	0.002	0.004*	-0.003***
	(0.003)	(0.003)	(0.001)	(0.002)	(0.003)	(0.001)	(0.001)	(0.002)	(0.001)
Constant	4.024***	4.000***	0.997***	3.468***	3.436***	0.792***	3.141***	2.954***	0.746***
	(0.183)	(0.188)	(0.078)	(0.170)	(0.177)	(0.077)	(0.098)	(0.103)	(0.047)

Note. Relevance and Importance models use OLS. Mind-change (0/1) models use OLS (linear probability). Robust SEs in parentheses. In Study 4, the fixed wisdom of crowds process is the reference level.

Table 3
Robustness check: OLS models controlling for final confidence (Studies 1, 2 & 4)

	Study 1			Study 2			Study 4		
	Relevance	Importance	Mind-Change	Relevance	Importance	Mind-Change	Relevance	Importance	Mind-Change
Intuition	-0.374***	-0.398***	-0.182***	-0.165+	-0.112	-0.125***	-0.127+	-0.136+	-0.117***
	(0.106)	(0.109)	(0.039)	(0.086)	(0.090)	(0.034)	(0.072)	(0.076)	(0.032)
Final Confidence	-0.013***	-0.013***	-0.011***	-0.012***	-0.012***	-0.011***	-0.004**	-0.002	-0.008***
	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)	(0.001)	(0.001)
Constant	4.269***	4.272***	1.081***	3.806***	3.698***	0.951***	3.421***	3.263***	0.981***
	(0.129)	(0.132)	(0.048)	(0.124)	(0.130)	(0.050)	(0.085)	(0.090)	(0.038)

Note. Relevance and Importance models use OLS. Mind-change (0/1) models use OLS (linear probability). Robust SEs in parentheses. In Study 4, the fixed wisdom of crowds process is the reference level.

4.3. Discussion

We found initial evidence that people who followed their intuition evaluated contradictory information more negatively than people who followed a structured process. Not surprisingly, this disregard for the utility of opposing views, as measured through beliefs that challenging evidence was irrelevant and unimportant, was associated with less mind-change behavior. Given that following the multi-step process was more time-intensive than simply relying on one's gut reaction, expended effort did not appear to be the driving force behind the desire to stick to initial decisions. This is surprising given prior work on the escalation of commitment documents how greater investment of time, money, resources, etc. leads people into a self-reinforcing trap of persistence (Sleesman et al., 2012; Staw, 1976).

Although intuition-users were explicitly dismissive of the contradictory information, they reported feeling less confident. Despite feeling decreased confidence in the perceived accuracy of their predictions, however, intuition-users were more likely to resist abandoning their decisions. We replicated these effects using a different decision context, structured process and geographic sample. Please see Appendix C in the Supplement for the full methods and results.

In the next two studies, we explored and tested a possible explanation for why intuition-led decision-makers evaluated contradictory information more negatively (compared to process-led decision-makers), while also testing the limits of our effect with structured processes that ceded greater freedom to the decision-maker.

5. Study 2

We investigated the idea that intuitive decisions feel more strongly like one's *own* decision, despite decision-makers investing greater effort executing structured decisions. In this way, decision-makers could experience heightened reluctance to accommodate contradictory information and overturn decisions that feel more strongly like their own.

Additionally, we aimed to test the boundaries of our effect by introducing a flexible structured process that allowed for individual customization. Although following a structured process, by definition, imposes greater constraints on the decision-maker compared to following one's intuition, processes can vary in their level of constraint. In this study, we reduced constraint for process-led decision-makers by allowing them to customize their own process (inspired by modifiable algorithms in Dietvorst et al., 2018), so that participants had the freedom to add, remove, and determine decision weights for a decision matrix.

5.1. Method

5.1.1. Sample

407 undergraduates from an East Asian University (M_{age} = 19.63 years, SD = 4.17; 50.4% male, 48.6% female, 1% prefer not to answer) participated in an academic study about decision-making. See Appendix D in the Supplement for the power analysis, pre-test of the process, and additional analyses.

5.1.2. Procedure & Measures

Participants completed the same task from Study 1 - watching a video of two employees interacting in a meeting and predicting which employee has more seniority. Participants were randomly assigned to the intuition or process condition. Participants assigned to the the intuition condition received identical instructions from Study 1.

In the process condition, participants were first instructed to customize a decision matrix, before they watched the video, but after the task was explained to them. We purposely chose this order, so that participants would not design a process to justify their gut reaction. As part of the customization, participants could add their own cue they believed reflected seniority, beyond the default cues. Importantly, participants had the ability to assign their own weights to each cue (ranging from 0 to 1) to indicate its relative importance, with more critical cues receiving higher weight. Therefore, it was possible for the participant to

remove all default cues suggested by the process (by assigning them a weight of 0) and only allow their personal cue to fully determine the process results. After customizing the matrix, participants watched the video and evaluated both employees based on the cues they deemed important (i.e. cues with weights greater than 0). The matrix then calculated each employee's seniority score based on the assigned weights and evaluations as determined by the participant. A separate pre-test of this customizable process indicated people believed it would lead to more accurate predictions than relying on one's intuition. See Appendix D in the Supplement for additional details.

All participants indicated their confidence level with their prediction. As a measure of psychological ownership, we asked participants, "*How much does this decision feel like your own decision*?" on a 1-5 Likert scale from "Not at all my own decision" to "A great deal my own decision" with a visual image representing the self. We provided participants with additional information that contradicted their predictions, followed by the same set of questions from Study 1.

5.2. Results

Evaluations of contradictory information and mind-change behavior. Intuition users evaluated contradictory information more negatively than process-led users, finding the same information to have less utility, although the difference was marginal ($M_{\text{intuition}}$ = 2.94 of 5, SD = .883 vs. M_{process} = 3.08, SD = .842, t(405) = 1.636, p = .103, d = .162). Looking at the measures individually, intuition users found the contradictory information to be *less relevant* than process users ($M_{\text{intuition}}$ = 2.99 of 5, SD = .939 vs. M_{process} = 3.16, SD = .874, t(405) = -1.86, p = .064, d = -.184) but not *less important* ($M_{\text{intuition}}$ = 2.90 of 5, SD = .982 vs. M_{process} = 3.01, SD = .915, t(405) = -1.20, p = .229, d = -.119) . We found no difference in perceptions of novelty ($M_{\text{intuition}}$ = 3.07 of 5, SD = .970 vs. M_{process} = 3.17, SD = .872, t(405) = -1.015, p = .311, d = -.101). Importantly, intuition users were less willing to adjust their decision

accounting for the additional information compared to process users, consistent with our predictions and aligned with final mind-change behavior ($M_{process}$ = 2.72 of 5, SD = 1.09 vs. $M_{intuition}$ = 2.51, SD = 1.15, $t(405) = 1.83$, $p = .068$, $d = .182$).

In support of H2, intuition users were less likely to change their minds (18.7%) compared to process users (31.4%), $x^2(1, 407) = 8.67$, $p = .003$, $\varphi = .146$. We also checked to ensure that those who changed their minds believed the contradictory information to have greater utility than those who persisted with their initial predictions and indeed this was the case, M_{flip} = 3.55 of 5, SD = .764 vs. $M_{not\text{-}flip}$ = 2.83, SD = .821, $t(405) = -7.81$, $p < .001$, $d = -.893$. In other words, regardless of the decision approach, decision-makers who perceived the contradictory information to be more relevant and important were the ones who were more likely to change their minds.

Alternative explanations. Although participants in our pre-test believed utilizing the customizable process would be more accurate than relying on intuition, we found no difference in initial confidence ($M_{intuition}$ = 64.09, SD = 16.59 vs. $M_{process}$ = 64.07, SD = 19.80, $t(393.57) = -.011$, $p = .991$, $d = -.001$) or final confidence ($M_{intuition}$ = 55.81, SD = 21.55 vs. $M_{process}$ = 55.67, SD = 22.81, $t(405) = -.064$, $p = .949$, $d = -.006$) between conditions in our main study. Although the final confidence of participants was nearly identical between decision approach, process users were more likely to act on their decreased confidence and change their minds than intuition users.

Similar to Study 1, in which the majority of participants predicted the female to be more senior (69% for intuition and 65% for process), we generally found the same pattern (67% for intuition and 78% for process), but the increase in participants in the process condition predicting the female was senior resulted in a statistical difference between conditions, $x^2(1, 407) = 6.05$, $p = .014$, $\varphi = .122$. Given the process was customizable with no difference in initial confidence, we were less concerned this was due to the process

producing a result the decision-makers felt less confident was accurate. Moreover, participants who initially chose the male employee were significantly more likely to reverse their decision than those who started with the female, $x^2(1, 407) = 19.71$, $p < .001$, $\varphi = .220$. Since process participants were more likely to initially select the female employee, they should have been less likely to flip—yet we observed the opposite. This pattern helped to rule out the alternative explanation that our effect stemmed from differences in initial predictions or confidence.

Psychological ownership. We had predicted that differences in mind-change behavior as a function of decision approach could be driven by differing feelings of psychological ownership, or the extent to which participants felt the decision was their *own*. In support of H3, participants expressed greater psychological ownership over intuitive decisions compared to customizable process-led decisions in which they spent more time and effort in crafting their decision-making process, $M_{process} = 3.49$ of 5, $SD = .980$ vs. $M_{intuition} = 3.95$, $SD = .869$, $t(399.70) = -5.02$, $p < .001$, $d = -.497$.

Based on our theory, feelings of psychological ownership should emerge once a decision has been made, and it therefore precedes the subsequent decision about whether to change one's mind. We measured psychological ownership before mind-change, consistent with the hypothesized temporal ordering, and tested the mediation model accordingly. In support of H4, psychological ownership was a significant mediator of our outcome measures, for both willingness to adjust their decision and mind-change. The more participants perceived the decision to be an extension of themselves (i.e. "*This decision is mine*!"), the less likely they were to adjust or change it. Including beliefs on how much the decision was their *own* decision in the model reduced the effect of decision approach (from $\beta = -.20$, $p = .068$ to $\beta = -.11$, $p = .35$). *Own* decision was a significant predictor of likelihood of adjustment ($\beta = -.21$, $p < .001$) and the CI for the indirect effect excluded zero [-.18, -.03].

The same pattern was found for the decision to change their minds (from β = -.69, p = .004 to β = -.44, p = .074), in which *own* decision was a significant predictor of mind-change (β = -.59, p < .001) and the CI for the indirect effect excluded zero [-.47, -.12].

5.3. Discussion

Even when a structured process required investment of effort and allowed for customization, so that decision-makers could adjust the process based on what they believed was important, they still viewed subsequent contradictory information as more useful, and were more likely to abandon these effortful and customized structured decisions compared to intuitive decisions. Indeed, decision-makers reported higher levels of psychological ownership over their intuitively driven decisions, compared to their customizable process-led decisions, and these differing feelings of ownership mediated the relationship between decision approach and mind-change. In the next study, we went beyond customization and allowed decision-makers free rein to create their own process.

6. Study 3

We aimed to document the limits of our effect when the process is fully determined by participants with no external constraints on how the process should be structured or which factors to consider. While we acknowledge this kind of process is less likely to be endorsed organizationally given the accuracy benefits of standardized decisions, we tested this version of a structured process to establish the boundaries of our effect. Additionally, we used the hiring context because it is one in which people often prefer to rely on their intuition while recent research has pointed out the need and efficacy of incorporating structure into these decisions to reduce individual bias (Miles & Sadler-Smith, 2014; Wally & Baum, 1994). Because participants designed and implemented their own process, we predicted no difference between them and intuition users in psychological ownership or in how useful they

would perceive the contradictory information. Thereby, we also predicted no difference in mind-change behavior by decision approach.

6.1. Method

6.1.1. Sample

800 U.S. Prolific participants (M_{age} = 45.54 years, *SD* = 12.97; 45.1% male, 53.4% female, 1.5% other) participated in an academic study about decision-making. See Appendix E in the Supplement for the power analysis, link to the video stimuli, and additional analyses.

6.1.2. Procedure & Measures

Participants were told their task was to watch a one-minute speech by two job candidates (Doug and Sammy) and decide who would be the better hire for a consultant position. We told participants that since Doug and Sammy were equally matched on other aspects of their candidacy (CVs, transcripts, and exam scores), they needed to make their hiring determination based on the interview video clip. To incentivize accurate decisions, we offered a bonus to participants who selected the candidate with higher independent evaluations. As in the previous studies, we randomly assigned participants to make their decision using either their intuition or a structured decision process.

Before viewing the target videos, all participants were shown a sample video featuring a different candidate. Participants in the intuition condition were instructed to watch the sample video in order to familiarize themselves with the task. Participants in the process condition were instructed to watch the sample video to design their own structured decision process for evaluating candidates and were required to remain on the page for at least two minutes. We described several examples of structured processes that could be used such as weighted scorecards, a list of pros/cons, ranked comparisons, etc. but importantly we emphasized that participants were free to make and follow any kind of structured process they believed would be best.

All participants were then told that their assigned decision approach was effective for person-perception tasks of this kind. Participants in the intuition condition next watched the target video and were told to select the better candidate relying on their gut feelings. In the process condition, after watching the video, we piped in each participant's self-generated process and asked them to implement it to make their selection. We also provided a textbox to describe their implementation.

We measured confidence in this initial hiring prediction, and feelings of psychological ownership, as we did in prior studies. We then presented all participants with contradictory information about the two candidates. We intentionally chose one piece of quantitative information (i.e., the number of spoken languages) and one piece of qualitative information (i.e., subjective impression from peers). Specifically, we informed them that the candidate they had not selected was fluent in four languages (English, Spanish, Arabic, and Mandarin), whereas the candidate they had selected was only beginning to learn French. We noted that multilingualism is a valuable asset at consulting firms. We further informed them that several junior consultants who had conducted one-on-one interviews with their selected candidate expressed reservations about future collaboration, while those who had interviewed the unselected candidate were eager to work with him. We then asked the same set of questions as prior studies.

6.2. Results

Evaluations of contradictory information and mind-change behavior. As predicted, there was no statistically significant difference in utility perceptions of contradictory information by decision approach when participants created their own structured process ($M_{intuition}$ = 3.69 of 5, SD = 1.04 vs. $M_{process}$ = 3.55, SD = 1.03, t(798) = -1.938, p = .053, d = -.138). We found no difference in perceptions of novelty ($M_{intuition}$ = 3.50 of 5, SD = 1.12 vs. $M_{process}$ = 3.39, SD = .1.09, t(798) = -1.343, p = .180, d = -.096). Furthermore, there was no

statistically significant difference in willingness to adjust their decision between conditions ($M_{intuition}$ = 2.95 of 5, SD = 1.38 vs. $M_{process}$ = 2.76, SD = 1.29, $t(798) = -1.90$, $p = .058$, $d = -.136$). As predicted, when relying on a freely determined structured process, process users were no more likely to change their minds (46.5%) than intuition users (46.9%), $x^2(1, 800) = 0.016$, $p = .899$, $\varphi = .004$.

Alternative explanations. Interestingly, those who designed and implemented their own structured process reported significantly higher confidence than intuition users both initially ($M_{intuition}$ = 72.34, SD = 17.48 vs. $M_{process}$ = 77.37, SD = 15.57, $t(798) = 4.217$, $p < .001$, $d = .301$) and after receiving the additional information ($M_{intuition}$ = 49.89, SD = 26.77 vs. $M_{process}$ = 55.02, SD = 25.26, $t(798) = 2.745$, $p = .006$, $d = .196$). Notably, participants reached similar conclusions regardless of decision approach, selecting Doug as the better candidate (66% for intuition and 65% for process). In other words, participants' confidence appeared to be rooted in their belief about the effectiveness of their decision approach rather than in the perceived accuracy of their selection.

Psychological ownership. Participants who were free to create and follow their own process to make the hiring determination designed processes such as pros and cons lists, weighted scorecards, and trait-by-trait comparisons across self-chosen criteria. As predicted, when a structured process was entirely self-determined, intuition and process users did not differ in the extent to which the decision felt like their *own* ($M_{intuition}$ = 4.52, SD = .73 vs. $M_{process}$ = 4.54, SD = .729, $t(798) = .394$, $p = .694$, $d = .028$). This null result is particularly striking given how much time (and arguably effort) participants invested in the process condition, spending on average 3.89 minutes creating their process and another 5.19 minutes implementing it. Process users also wrote on average 193.55 characters (SD = 128.74) describing their process and 303.39 characters (SD = 236.25) explaining how they followed it.

6.3. Discussion

This study established an important boundary condition. Differences in mind-change behavior by decision approach disappeared when structured processes were freely determined so that feelings of psychological ownership matched those who relied on their gut feelings. When people exercise complete freedom in how they structure their decision, their process-led decisions can become as sticky as intuition. This points to a potential trade-off in how much latitude decision-makers are given with regards to the structured decision process. More freedom may encourage people to be more willing to adopt a structured process, but the associated feelings of psychological ownership can also leave decision-makers less willing to revise the resulting decision when it is prudent to do so.

We expect this boundary to be most relevant to individual decisions for which people are free to implement their own decision-making process, such as creating a pros/cons list to choose which home to buy or designing a matrix to decide which job offer to accept. In these instances, people may believe they are making better decisions than having followed their gut feelings, but they may unknowingly become less willing to consider new information that challenges their initial decision. These effects may increase as decision-makers expend more effort developing and honing their process over time.

Finally, we found that even when people feel less confident about the perceived accuracy of their intuitive decision, this does not necessarily mean they will appreciate the utility of contradictory information or be willing to change their mind. This aligns with our prior studies suggesting that confidence in the perceived accuracy of a decision cannot fully explain how people make decisions and decide to stick with them. Next, we investigated whether our effects still hold when structured processes are widely recognized as leading to more accurate decisions.

7. Study 4

In this study, participants completed an incentivized task with an objectively correct answer - estimating the age of a person in a photo. The structured process relied on the wisdom of crowds, which led to accurate estimates by aggregating independent estimates. Given the well-known accuracy benefits of data aggregation, participants assigned to the process condition could very well dismiss the contradictory information and stick to these accurate estimates. Despite the accuracy boost of following a structured process, we still predicted intuitive decisions to be stickier because they would feel more strongly like one's *own* decision. In an additional exploratory condition, we allowed participants to customize the wisdom of crowds to test whether doing so would increase psychological ownership and the stickiness of decisions, as we documented in the prior study.

7.1. Method

7.1.1. Sample

1192 U.S. Prolific participants (M_{age} = 43.02 years, *SD* = 13.45 years; 48.2% male, 50.4% female, 1.3% other) participated in an academic study about decision-making. See Appendix F in the Supplement for the power analysis, photo stimuli, and additional analyses.

7.1.2. Procedure & Measures

All participants were incentivized to accurately estimate the age of a person in a photo referred to as Susan. We used photos of two different women (Moore, Carter, & Yang, 2015) and collapsed on this photo variable. Participants were randomly assigned to one of three conditions, in which participants relied on their gut feelings (intuition condition), followed the wisdom of crowds by averaging 10 estimates (structured process condition), or customized the wisdom of crowds (customized structured process condition). Our main comparison of interest was between the intuition and structured process conditions, with the third condition being exploratory.

In the intuition condition, participants viewed the photo for 5 seconds and were instructed to report their estimate of Susan's age based on their gut feelings. They were told that research shows relying on intuition for people perception tasks is effective. In the structured process condition, participants viewed the photo and were presented with 10 age estimates along with justifications provided by other participants collected in a separate study (see Appendix E in the Supplement for details). The average of all 10 estimates was used as their prediction and it reflected Susan's true age, so following the process was designed to lead to accurate estimates. Participants were told that research shows averaging estimates reduces individual error and boosts overall accuracy. In the customized structured process condition, participants were presented with the same 10 estimates and justifications, but had the ability to select 5 to 10 of the estimates to form their own "crowd." Participants were told that increasing the size of their crowd would generally help to increase accuracy.

All participants then indicated their confidence that their estimate was within one year of the correct age (0–100%) and we measured psychological ownership, as we did in prior studies.

We then presented all participants with contradictory information. If a participant's estimate was older than the actual age, we presented three pieces of information suggesting the target was younger. We told them: 1) 70% of participants who looked at this same photo incorrectly believed Susan was older than her actual age; 2) Susan was not wearing any makeup on the day the photo was taken, which may make her appear older than her actual age; and 3) Susan's favorite hobbies are pilates and participating in a photography club. Participants whose estimate was younger than the actual age were given information suggesting the target was older. We told them: 1) 70% of participants who looked at this same photo incorrectly believed Susan was younger than her actual age; 2) Susan dyed her

hair the day the photo was taken, which may make her appear younger than her actual age; and 3) Susan's favorite hobbies are bird-watching and participating in knitting club.

For participants whose initial estimate was correct, we randomly assigned them to receive one of the two categories of contradictory information, in order to preserve our sample size. We then asked the same set of questions as prior studies. If participants chose to change their estimate, we provided a textbox to input their new estimate.

7.2. Results

Accuracy. Not surprisingly, people who relied on their intuition were less accurate (only 6% guessed accurately, with an average deviation of 7.95 years, SD = 5.86) than those who relied on the structured process, given that the wisdom of crowds was designed to lead to accurate estimates. When participants were allowed to customize their crowd (and essentially select their estimates), this reduced their accuracy. On average, participants in this condition created a crowd of size 6.17 (SD = 1.69) estimates, and their initial estimates deviated 1.14 years from the actual age, more accurate than intuitive estimates, $t(421.75) = 21.90$, $p < .001$.

Evaluations of contradictory information and mind-change behavior. We report the results of our main comparison of interest, which is between participants in the intuition versus structured process conditions. As predicted and in support of H1, intuition users evaluated the contradictory information more negatively, rating it as having less utility than those who used a structured decision process ($M_{intuition}$ = 3.08 of 5, SD = 1.01 vs. $M_{process}$ = 3.21, SD = 1.00, t(796) = -1.76, p = .040, d = -.124). We found no difference in perceptions of novelty ($M_{intuition}$ = 3.01 of 5, SD = 1.08 vs. $M_{process}$ = 3.06, SD = 1.06, $t(796) = -.62$, p = .266, d = -.044). Intuition users also reported less interest in adjusting their decision in response to the additional information than process users, $M_{intuition}$ = 2.36 of 5, SD = 1.14 vs. $M_{process}$ = 2.80, SD = 1.30, $t(785.42) = -5.01$, $p < .001$, d = -.355.

In support of H2, intuition users were less likely to change their minds (48.4%) than process users (58.1%), $x^2(1, 784) = 7.61$, $p = .006$, $\varphi = .099$. This pattern is striking given that intuition users reported lower initial confidence than process users ($M_{intuition} = 54.03$, $SD = 23.04$ vs. $M_{process} = 57.36$, $SD = 26.24$, $t(784.77) = -1.54$, $p = .029$, $d = -.135$). We found no significant difference in final confidence between conditions ($M_{intuition} = 46.09$, $SD = 24.78$ vs. $M_{process} = 48.48$, $SD = 26.17$, $t(796) = -1.33$, $p = .093$, $d = -.094$), suggesting that the greater resistance to change among intuition users was not driven by stronger beliefs that they were correct.

Psychological ownership. In support of H3, intuitive decisions felt more like one's own than process-led decisions, $M_{intuition} = 4.78$ of 5, $SD = .55$ vs. $M_{process} = 2.34$, $SD = 1.37$, $t(525.52) = 32.52$, $p < .001$, $d = 2.30$). In support of H4, psychological ownership was a significant mediator of our outcome measures, for both adjustment and mind-change. Including beliefs on how much the decision felt like their own decision in the model reduced the effect of decision approach (from b = -.43, $p < .001$ to b = -.11, $p = .416$). Beliefs of own decision was a significant predictor of likelihood of adjustment (b = -.14, $p = .002$) and the CI for the indirect effect excluded zero [-.53, -.12]. The same pattern was found for the decision to change their minds (from b = -.39, p = .006 to b = .50, $p = .024$), in which beliefs of own decision was a significant predictor of mind-change (b = -.38, $p < .001$) and the CI for the indirect effect excluded zero [-1.26, -.58].

Exploratory customizable condition. We next examined whether allowing participants to customize their own "crowd" would shift psychological ownership and mind-change behavior closer to what we documented for people who relied on their intuition. Participants who relied on their intuition evaluated the contradictory information more negatively, rating it as having less utility than those who used a customized process ($M_{intuition} = 3.08$ of 5, $SD = 1.01$ vs. $M_{customprocess} = 3.21$, $SD = .99$, t(789) = 1.79, $p = .037$, $d = .127$). We found no

difference in perceptions of novelty ($M_{intuition}$ = 3.01 of 5, SD = 1.08 vs. $M_{customprocess}$ = 3.04, SD = 1.08, $t(789) = .46$, $p = .322$, $d = .033$).

Participants who created their own "crowd" reported higher initial confidence than intuition users ($M_{intuition}$ = 54.03, SD = 23.04 vs. $M_{customprocess}$ = 64.22, SD = 21.85, $t(789) = 6.34$, $p < .001$, $d = .454$) and higher final confidence as well ($M_{intuition}$ = 46.09, SD = 24.78 vs. $M_{customprocess}$ = 52.17, SD = 25.00, SD = 26.17, $t(789) = 3.44$, $p < .001$, $d = .244$). Decision-makers reported that intuitive decisions still felt more like one's *own* than customized process decisions ($M_{intuition}$ = 4.78 of 5, SD = .55 vs. $M_{customprocess}$ = 3.10, SD = 1.09, $t(577.34) = -26.66$, $p < .001$, $d = -1.90$).

Intuition users also reported less interest in adjusting their decision than customized process users, $M_{intuition}$ = 2.36 of 5, SD = 1.14 vs. $M_{customprocess}$ = 2.70, SD = 1.24, $t(789) = 3.97$, $p < .001$, $d = .282$. However, we document no significant difference in mind-change between conditions, when process users were allowed to customize their own "crowd," with intuition users changing their estimate 48.4% versus 51.8% in the custom process condition, $x^2(1, 791) = .92$, $p = .337$, $\varphi = .034$.

7.3. Discussion

In this study, we find that even when people follow a widely accepted structured process that leads them to accurate decisions, they are more willing to consider additional information and change their minds, compared to those who rely on their intuition. In other words, intuitive decision-makers are indeed more susceptible to making inaccurate decisions (as prior research has taught us) and then sticking with those less accurate decisions (as our own research indicates), despite not feeling any more confident in the perceived accuracy of their decision. The exploratory results also align with our prior findings suggesting that as structured processes become more freely determined, the likelihood decision-makers stick to the decisions generated from them increases.

8. General Discussion

Our studies demonstrated that relying on intuition made people evaluate contradictory information more negatively and made them less willing to change their minds than those who followed a structured process. After making an intuitive judgment, decision-makers tended to see the same contradictory information as less relevant and less important, reported less willingness to adjust, and were more likely to stick with their initial decisions. This pattern held across multiple decision contexts (criminal liability, workplace impressions, debate evaluations, age estimates, etc.), varied geographic samples (U.S., East Asia, and U.K.), as well as different versions of a structured process, including rigid step-based evaluation to a customizable decision matrix. Our findings go beyond the traditional focus that decreased confidence leads to greater mind-change by showing that willingness to change one's mind is also impacted by how those initial decisions were formed.

Importantly, we documented that intuitive decisions may be "stickier" as they felt more like one's *own*, which decreased regard for opposing views and increased reluctance to revise those initial decisions. Interestingly, feelings of psychological ownership for decisions appeared to depend less on effort invested, and more so on how much the decision felt like one's *own* decision. Our studies not only documented a key consequence of relying on one's intuition, the reason why it occurs can illuminate different ways the negative impact of relying on gut reaction can be reduced and offer ideas on how to guide decision-makers to distinguish between decisions that feel more or less like their own and adjust their decisions accordingly.

8.1. Theoretical Contributions

We expand the literature on how people view contradictory information by identifying an important antecedent. Prior work has often examined willingness to consider opposing views at the moment disagreement is encountered (Chen et al., 2010; Minson et al.,

2020; Yeomans et al., 2020). Our findings point to the possibility that how willing someone is to take into account contradictory information is not only determined by contextual factors such as who the recipient is and what the disagreement is about (Minson & Chen, 2022; Yeomans et al., 2020), but how those initial decisions were formed. Specifically, we contrast reliance on intuition with the type of structured decision approaches encouraged by organizations to reduce bias and increase accuracy. Indeed, we find that when decision-makers follow their gut feelings to form a decision, they evaluate subsequent challenging information to be less relevant and important, more so than when those initial decisions were formed through reliance on effortful procedures, accuracy-enhancing decision tools, or customized constraints.

Our findings also speak to the open question of whether being willing to consider opposing views is a stable trait or a situational state (Minson & Chen, 2022). If the same person sometimes relies on intuition and other times follows a structured process, such willingness may vary across decisions within the same individual. Although we randomly assigned participants in our studies to a particular decision approach, in reality, an individual's choice on how to make a decision will depend on norms, expertise, and consequences associated with the decision outcome. To the extent that these factors shift across decision domains, downstream openness to opposing views may also shift depending on whether people rely on intuition versus a structured process.

Our studies also contribute to the mind-change and decision-making literatures by offering a novel relationship between the two accounts. Prior literature has documented the general hesitancy people face as they consider changing their minds for a variety of cognitive and psychological reasons (Arkes & Blumer, 1985; Russo et al., 2008; Simmons & Nelson, 2006). Our research expands the scope of dual-process theory beyond initial decision accuracy (J. Evans, 2010; Kahneman, 2011) to consider what happens after an initial decision

has been made, when people face contradictory information and have the opportunity to change their minds. Because even initially accurate decisions can later face new diagnostic evidence, willingness to take into account such contradictory information is an important component of good decision-making. Our findings extend decision-making research by showing that decision approach shapes how people evaluate new information and whether they revise an initial judgment in light of that information. Consistent with this account, participants who evaluated the contradictory information as more relevant and important were more likely to change their minds, and reliance on intuition increased disregard of disconfirming information relative to following a structured process. Finally, mind-change behavior could not be fully explained by differences in confidence at the moment of revision, suggesting that decision-makers can stick with intuitive decisions even when their confidence has been shaken.

Lastly, we extend psychological ownership theory to decision-making by showing that decisions can vary in the extent to which they feel like one's *own*, and that this sense of ownership can impact subsequent evaluations of contradictory information. Prior work often links ownership to self-investment through time and effort (Baer & Brown, 2012), but our studies suggest that decision-making is unique because ownership can also arise from how much a decision represents the self, and feels like one's own decision. In Studies 2 and 3, intuitive decisions felt more like one's *own* than process-led decisions, and stronger ownership was associated with enhanced disregard of contradictory information. Importantly, this mechanism also allows us to better understand the boundaries of our effect. As structured processes become more free and decision-makers have more say in designing their own process, feelings of psychological ownership can increase so that differences in mind-change behavior by decision approach start to fall away.

8.*2. Practical Implications*

Although advocating for structured decision processes has traditionally been framed as a way to improve decision accuracy, our findings suggest it is also a way to increase downstream willingness to consider contradictory information and promote mind-change. This is especially important for complex decisions in evolving environments, such as which market to enter or CEO succession, because bounded rationality limits decision-makers' ability to search for and process information comprehensively at any single point in time, as consequential evidence often emerges over time. Our research therefore underscores the importance of paying attention to *how* initial decisions are made, the extent to which intuition plays a role, and understanding why intuitive decisions can be especially difficult to abandon.

Our findings suggest that resistance to changing one's mind is not only about confidence or invested effort, but also about feelings of psychological ownership. People often struggle to resist the temptation of relying on their gut reaction as intuitive judgments are fast and compelling, and efforts to increase the adoption of structured approaches by emphasizing their accuracy benefits have often been met with limited success (Camerer & Hogarth, 1999; Larrick, 2004; Lerner & Tetlock, 1999). Our results point to an additional reason for why intuitive decisions may be enticing, which is that they feel uniquely like one's *own* – subsequently reducing a decision-maker's willingness to consider alternative views thereby leading to greater stickiness of potentially faulty decisions. We can leverage understanding of this mechanism to design better interventions. Highlighting the idea of a structured decision feeling like one's *own* may increase adoption of structured decisions (for example, by emphasizing the internal information processing and analytical thinking they reflect), while decreasing the idea of a gut reaction as representing one's inner self may help increase willingness to consider opposing views and reduce the stickiness of decisions.

Finally, many consequential organizational decisions are made in groups, in which disagreement and opposing views can quickly feel threatening rather than inputs for

improvement. Because our findings link feelings a decision is "mine" to greater stickiness, interventions that reduce individualized ownership and increase a sense of shared, or collective, ownership may help groups remain more open to opposing views. For example, leaders can frame early preferences as provisional and explicitly tied to the group's collective goal, so that revising decisions are experienced as updating a shared decision rather than abandoning one's own.

8.3. Limitations and Future Directions

In our studies, across decision contexts, participants did not differ in their knowledge or experience about the decision they made (as far as we know), but future empirical work can explore how our effect may be influenced by expertise. It could be the case that as decision-makers feel more knowledgeable, they become less willing to take into account contradictory information and are thereby less likely to change their minds (regardless of decision approach), or it could be that intuitive decisions become "stickier" as experts feel more (internal and external) pressures to resist considering contradictory information.

Although we deliberately utilized a variety of contradictory information across our decision contexts and replicated our main effect regardless of whether the contradictory information was quantitative or qualitative in nature (Appendix B), a subtler possibility remains. The specific content we presented, rather than its form, might still have been considered more compatible with a structured than an intuitive decision approach. It is possible that certain categories of evidence can be especially convincing to intuitive decision-makers and less so to process-led ones, or the reverse, and that the threshold for revision depends on the perceived compatibility between the contradictory information and how the decision was originally made. Examining which kinds of contradictory information are most persuasive to each type of decision-maker is a promising direction for future work.

Although our participants had relatively little to no impression-management related pressures, prior scholars have found that reputational considerations affect decision-making (Dorison et al., 2022; John et al., 2019). Indeed, an exploratory test revealed that intuitive decisions can be made "less" or "more" sticky by changing impression-management goals. Specifically, we documented that intuitive decisions become *more stickier* as decision-makers were incentivized to display confidence and *less stickier* as decision-makers were incentivized for thoughtfulness. See Appendix G in the Supplement for the full methods and results. Future research can look at how making intuitive versus process-led decisions publicly (or with an evaluative audience) affects perceptions of contradictory information and mind-change behavior. It could be that all decisions become stickier with impression-management concerns, or it could be that our effect becomes pronounced, so that intuitive decisions become stickier (as people want to show they don't waffle on innately driven decisions) while process-led decisions become less stickier (as people want to demonstrate their willingness to update their structured decisions).

9. Conclusion

Our research shows that how a decision is initially made has downstream consequences for how decision-makers evaluate the merits of subsequent information and how likely they are to change their minds. Relying on intuition can increase psychological ownership of the initial decision relative to following a structured process, which in turn makes contradictory information seem less useful and reduces willingness to revise the initial decision. These findings highlight a benefit of structured decision processes that goes beyond the commonly discussed accuracy advantage - they encourage downstream willingness to consider opposing views and facilitate decision updating. Given that consequential and complex decisions often unfold in evolving environments in which diagnostic information

emerges over time, being open to new information is essential, and imposing decisional constraints at the outset can help prevent early decisions from becoming unnecessarily sticky.

Overall, our research demonstrates that how people make decisions is more complex than a singular pursuit of accuracy. When faced with the opportunity to update their decisions, people may weigh a host of considerations, aside from optimizing accuracy, such as how much a decision feels like one's *own*. Giving credence to the importance of decision-maker feelings and the subjective decision-making experience is an integral aspect of understanding how people make decisions and decide whether to stick to them (Arkes et al., 2002; Dorison et al., 2022; Lerner et al., 2015; Loewenstein & Lerner, 2003; Woolley & Risen, 2018)

Open Practices

We report all sample sizes, data exclusions, manipulations, and measures in the studies. Links to all videos used as study stimuli are provided. All studies were pre-registered on AsPredicted before data collection began. Pre-registrations, raw and clean data, and study stimuli are saved to Research Box #2821.[2]

[2] https://researchbox.org/2821&PEER_REVIEW_passcode=OGJYHS

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